

X-RAY SOURCE SUPPORT ASSEMBLY

Abstract

An x-ray generating assembly is provided comprising an x-ray source assembly mounted to a mounting element. The assembly further includes a support assembly comprising a motor element and a gear assembly in communication with the motor element. An output shaft is in communication with the gear assembly such that the output shaft rotates in response to the motor element. The mounting element is positioned around the output shaft. An electromechanical lock is engaged to the mounting element such that the electromechanical lock rotates in concert with the mounting element. The electromechanical lock has an engaged condition and a disengaged condition. The electromechanical lock engages the mounting element when the electromechanical lock is in the engaged condition such that the mounting element rotates with the output shaft. The mounting element is free to rotate when the electromechanical lock is in the disengaged condition.